



BUILDING AND CODES

Preventing the entry of radon gas into buildings is technologically and economically feasible. The easiest way to address this health hazard is to prevent its entry into the structure from the beginning. The way to do that is through changes in **building codes**. However, nothing prevents the savvy homebuilder from using radon resistant construction techniques or the purchaser from asking that these techniques be used in any home they buy.

Brentwood, in Williamson County, became the first city in Tennessee to require passive radon barriers on all new construction. However, many are pushing for these techniques to be adopted. It is easier and less expensive to build these resistant features into a building from the beginning than to mitigate later. To find out about your city's codes, contact your local planning department.

Periodically, training courses are offered to Tennessee builders and contractors to help them learn about radon resistant construction techniques. Codes officials often attend this type of training, too. Continuing education units are available for some of the courses.

Many state and local building codes now require that radon mitigation techniques be included in new residential construction and, in some cases, commercial construction. This is especially true in high-risk radon areas. According to the "CABO One and Two Family Dwelling Code," where radon resistant construction is required, certain techniques must be used.

These techniques include:

- ◆ Appropriate sub floor preparation and ground cover utilization;
- ◆ Potential radon entry routes closed;
- ◆ Openings around bathtubs, showers, pipes, etc sealed;
- ◆ Condensate drains routed to daylight;
- ◆ Sumps fitted with a lid to accommodate a vent pipe;
- ◆ Foundation walls in place;
- ◆ Exterior surfaces damp proofed; and
- ◆ Crawl spaces ventilated and covered.

For more information visit:

<http://www.epa.gov/iag/radon/construc.html>

or

Call 1-800-767-7236, US Environmental Protection Agency



CITY OF BRENTWOOD SUCCESS STORY

City of Brentwood Makes Healthier Homes a Priority with Adoption of Radon Resistant Construction Codes for Single Family Dwellings

On August 8, 1999, the City of Brentwood, TN became the first city in Tennessee to adopt radon resistant construction codes (RRC). The new codes became effective on August 12, 1999. Brentwood is located in a Zone One county, which means it is a high radon risk potential county. Many other middle and east Tennessee counties are also Zone One counties.

The passage of the historic and progressive building code by Brentwood officials requires the use of effective and inexpensive techniques that mitigate (or reduce) the presence of radon gas. Passage of the new codes was followed by a four hour technical training course for Brentwood contractors presented on September 16, 1999, and hosted by the Tennessee Department of Environment and Conservation. It is an important first step toward building healthier homes for Tennesseans.

Radon resistant construction techniques are not only effective but also inexpensive. They add only about \$300 to \$500 to the overall costs of a new home in Tennessee. While use of these techniques helps mitigate the presence of radon gas, they also provide an additional benefit of overall improvement of indoor air quality. Indoor air quality problems are often identified with or related to the presence of moisture, mildew, dust, spores, fungus, and pesticides. Many of these airborne contaminants are reduced as a result of the use of radon resistant construction techniques. This added benefit is achieved because these techniques provide containment barriers and specially designed ventilation systems that draw contaminants from under the home before they can enter and circulate through the home before venting them to the outside.

With concerns and incident rates increasing for lung cancer, indoor air quality, asthma, and other respiratory ailments, use of radon resistant construction techniques is a viable, effective, and inexpensive way to build and enjoy healthier homes in Tennessee.



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RADON HOTLINE

1-800-232-1139